

Title (en)
METHOD AND APPARATUS FOR DETECTING THE PRESENCE OF A SIGNAL IN A FREQUENCY BAND USING NON-UNIFORM SAMPLING

Title (de)
VERFAHREN UND VORRICHTUNG ZUM DETEKTIEREN DER ANWESENHEIT EINES SIGNALS IN EINEM FREQUENZBAND UNTER VERWENDUNG VON NICHT GLEICHFÖRMIGER ABTASTUNG

Title (fr)
PROCÉDÉ ET APPAREIL POUR DÉTECTER LA PRÉSENCE D'UN SIGNAL DANS UNE BANDE DE FRÉQUENCES EN UTILISANT UN ÉCHANTILLONNAGE NON UNIFORME

Publication
EP 2097981 B1 20110420 (EN)

Application
EP 07813514 A 20070730

Priority
• US 2007074682 W 20070730
• US 60998006 A 20061213

Abstract (en)
[origin: WO2008073528A1] A method and apparatus for detecting the presence of a signal in a frequency band using non-uniform sampling includes an analog to digital converter (ADC) (110) for sampling an analog input signal (105) to create discrete signal samples (115), an ADC exciter (120) for exciting the ADC to sample at non-uniform time periods, a digital filter (130) for converting the discrete signal samples into an energy versus frequency spectrum (300), and an energy comparator (140) coupled to an output of the digital filter. The energy comparator (140) detects the presence of any frequency bands exceeding an energy setpoint.

IPC 8 full level
H03M 1/06 (2006.01); **H03H 17/02** (2006.01)

CPC (source: EP KR US)
H03H 17/02 (2013.01 - KR); **H03M 1/06** (2013.01 - KR); **H03M 1/1265** (2013.01 - EP US); **H03M 13/00** (2013.01 - KR); **H04L 27/265** (2013.01 - EP KR US)

Cited by
CN107135128A

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
WO 2008073528 A1 20080619; AT E506752 T1 20110515; BR PI0720103 A2 20131224; CN 101558567 A 20091014; CN 101558567 B 20151125; DE 602007014093 D1 20110601; EP 2097981 A1 20090909; EP 2097981 B1 20110420; KR 101353754 B1 20140121; KR 20090091757 A 20090828; KR 20110099297 A 20110907; US 2008143573 A1 20080619; US 2014003556 A1 20140102; US 8553808 B2 20131008; US 9094272 B2 20150728

DOCDB simple family (application)
US 2007074682 W 20070730; AT 07813514 T 20070730; BR PI0720103 A 20070730; CN 200780046267 A 20070730; DE 602007014093 T 20070730; EP 07813514 A 20070730; KR 20097012279 A 20070730; KR 20117015388 A 20070730; US 201314015562 A 20130830; US 60998006 A 20061213